

Title: Risk and Worry as Predictors of Cancer Health-Protective Actions: Data from the Health Information National Trends Survey

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Research questions: Examples of the questions we will ask include:

1. Are risk perceptions associated with cancer screening behaviors?
2. Is worry about cancer associated with cancer screening behaviors?
3. Are risk and worry associated with screening similarly across different behaviors?
4. Do risk and worry operate “in parallel” or does worry moderate risk perceptions in predicting screening?
5. Do risk and worry also predict self-protective actions *other* than screening?

Study description/rationale

Understanding factors associated with the behaviors that people adopt to prevent and/or detect cancer is an important research task. Theoretically, how people appraise the likelihood of their risk of disease leads to greater health-protective actions. Risk, defined as likelihood, is cognition: a belief. But some theorists have also proposed that affect—feelings—can influence health-protective behavior. The HINTS survey included both cognitive and affective appraisals related to cancer. Specifically, respondents reported their perceived *risk* of various cancers, and they reported their level of *worry* about those cancers. The HINTS data provide an opportunity to contrast these different measures using a representative national sample, and multiple measures of self-protective actions, and both retrospective (screening behavior) and quasi-prospective (screening intentions) measures.

Variable list

Personal risk (specific to each cancer;**CC1;CC2;BC1;BC2;PC1;PC2**)

Personal worry (specific to each cancer;**CC3;BC3;PC3**)

Health-protective behaviors

Screening (each cancer and overall) (**CK8;CK9;CC6;CC16;PC5**;))

Intentions to screen (**CC12;CC12;BC11**)

Information search (**HC9**)

Interest in lifestyle change? (**CK10**)

Eating fruits and vegetables (**FV1;FV3**)

Exercise (**Ex1;Ex2**)

We will also include demographic variables (as covariates), including gender, age, education, ethnicity, income

Method of analysis: Three kinds of analyses will be performed:

1. Descriptive analyses relating demographic variables (e.g., age) to perceived risk and worry and to self-protective behaviors
2. Correlational analyses relating risk and worry (individually) to self-protective behaviors. These analyses may need to control for background variables.
3. Hypothesis-testing analyses (using partial correlations and logistic regression) to test the relative predictive value of risk and worry. In addition, we may use SEM (or some version) to compare the value of a “parallel” model of risk and worry versus a model that includes worry as a moderator of risk.

References:

- McCaul, K.D., Branstetter, A.D., Schroeder, D.M., & Glasgow, R.E. (1996). What is the relationship between breast cancer risk and mammography screening?: A meta-analytic review. *Health Psychology, 15*, 423-429.
- McCaul, K.D., & Mullens, A.B. (2003). Affect, thought, and self-protective health behavior: The case of worry and cancer screening. In J. Suls and K. Wallston (Eds.), *Social Psychological Foundations of Health and Illness*, Malden, MA: Blackwell Publishers.

Targeted Journal:

If the data are interesting, *Health Psychology (short article)* might be an appropriate journal. *Psycho-oncology* would also be a possibility.
